Power Generation

Exhaust Emission Data Sheet
200DSHAC
60 Hz Diesel Generator Set
EPA NSPS Stationary Emergency

Engine Information:

Model:	Cummins Inc. QSL9-G2 NR3	Bore:	4.49 in. (114 mm)
		Stroke:	5.69 in. (145 mm)
Type:	4 Cycle, In-line, 6 Cylinder Diesel	Displacement:	543 cu. in. (8.9 liters)
Aspiration:	Turbocharged and CAC		
Compression Ratio:	16.8:1		
Emission Control Device:	Turbocharger and CAC		

	1/4	1/2	3/4	Full	Full
PERFORMANCE DATA	**Standby**	**Standby**	**Standby**	**Standby**	**Prime**
Engine HP @ Stated Load (1800 RPM)	78	156	233	311	282
Fuel Consumption (gal/hr)	4.6	9.1	13.1	16.4	15.2
Exhaust Gas Flow (CFM)	724	935	1004	1143	1106
Exhaust Temperature (°F)	616	755	906	1039	990
EXHAUST EMISSION DATA					
HC (Total Unburned Hydrocarbons)	0.21	0.10	0.06	0.05	0.05
NOx (Oxides of Nitrogen as NO2)	2.1	2.5	2.8	3.5	3.4
CO (Carbon Monoxide)	2.18	1.37	0.87	0.30	0.36
PM (particular Matter)	0.09	0.06	0.05	0.05	0.04
SO2 (Sulfur Dioxide)	0.15	0.15	0.14	0.14	0.14
Smoke (Bosch)	1.8	2.1	1.5	1.0	1.6

All values are Grams per HP-Hour

TEST CONDITIONS

Data was recorded during steady-state rated engine speed (± 25 RPM) with full load (±2%). Pressures, temperatures, and emission rates were stabilized.

Fuel Specification:	46.5 Cetane Number, 0.035 Wt.% Sulfur; Reference ISO8178-5, 40CFR86.1313-98 Type 2-D and ASTM D975 No. 2-D.
Fuel Temperature:	99 ± 9 °F (at fuel pump inlet)
Intake Air Temperature:	77 ± 9 °F
Barometric Pressure:	29.6 ± 1 in. Hg
Humidity:	NOx measurement corrected to 75 grains H2O/lb dry air
Reference Standard:	ISO 8178

The NOx, HC, CO and PM emission data tabulated here were taken from a single engine under the test conditions shown above. Data for the other components are estimated. These data are subjected to instrumentation and engine-to-engine variability. Field emission test data are not guaranteed to these levels. Actual field test results may vary due to test site conditions, installation, fuel specification, test procedures and instrumentation. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may results in elevated emission levels.

Power Generation

EPA Tier 3 Exhaust Emission Compliance Statement 200DSHAC

60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with the Tier 3 emissions limits of U.S EPA New Source Performance Standards for Stationary Emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO 8178 D2.

Engine Manufacturer:	Cummins Inc.
EPA Certificate Number:	CEX-STATCI-11-21
Effective Date:	10/14/2010
Date Issued:	10/14/2010
EPA Diesel Engine Family:	BCEXL0540AAB
CARB Executive Order:	

Engine Information:

Model:	Cummins Inc. QSL9-G2 NR3	Bore:	4.49 in. (114 mm)
Engine Nameplate HP:	364		
Type:	4 Cycle, In-line, 6 Cylinder Diesel	Stroke:	5.69 in. (145 mm)
Aspiration:	Turbocharged and CAC	Displacement:	543 cu. in. (8.9 liters)
Compression Ratio:	16.8:1		
Emission Control Device:	Turbocharged and CAC		

U.S. Environmental Protection Agency NSPS Stationary Emergency Tier 3 Limits

COMPONENT	(All values are Grams per HP-Hour)
NOx + HC (Oxides of Nitrogen as NO2 + Non Methane Hydrocarbons)	3.0
CO (Carbon Monoxide)	2.6
PM (Particulate Matter)	0.15

Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.